

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-28 are pending. Claims 1-28 stand rejected.

Claims 1, 3, 9, 11, 17, 19, 25, 26, and 27 have been amended. Claims 2, 5, 10, 13, 18, 21, 26, and 28 have been cancelled. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicant submits that the amendments do not add new matter.

Claims Objections

Claim 1, 3, 9, 11, 17, 19, 25 and 26 are objected to because of the following informalities: Acronyms are used without first defined. For example, IMA_ID in line 3 of claim 1.

Applicant has amended claims 1, 3, 9, 11, 17, 19, 25 and 26 to address the Examiner's rejection.

Rejections Under 35 U.S.C. § 102(e)

Claims 1-4, 6-12, 14-20 and 22-28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Vallee U.S. Patent No.6,205,142 ("Vallee"). The Examiner stated that

In regarding to claim 1, 9 and 17, Vallee teaches a method comprising: monitoring a plurality of links to determine state changes of the links (Column 7 Line 3-8); enforcing an IMA-ID check when an insufficient links state is reached (Column 8 line 52-56); relaxing the IMA-ID check when all the links are in an error state (Column 6 Line 59-63); and re-enforcing an IMA-ID check when at least one link of the plurality of links recovers from an error state (Column 6 line 59-63).

(p. 2-3, Office Action 6/4/04)

Vallee discloses that

Each ATM layer cell gets a sequence number assigned to it, but only the AIM SN cells carry that number across the links. After both nodes have started sending ATM layer cells, they periodically send a series of "n" AIM SN cells over links to allow the receiving node to readjust the differential delays among the links. The value of "n" is equal to the number of "ready" links used to carry AIM layer cells.

(Vallee Column 7 lines 3-8)

Vallee also discloses that

As seen in FIG. 11, a node A may be using a group of three links to send data to node B and another group of two links to send data to node C. Nodes A and B form one IMA group and nodes A and C form another. IMA groups are identified by IMA ID (Tx and Rx IMA ID).

(Vallee, Column 8 lines 52-56)

Vallee also discloses that

If there is no "ready" link when the time-out expires, the local node reevaluates the availability of the links (using cell delineation), starts sending AIM SN cells over the available links and re-starts the time-out. This procedure is repeated until at least one available link is declared ready.

(Vallee, Column 6 lines 59-63)

Vallee also discloses that

One symptom would be the detection of SN cells whose number is no longer the same as that expected (since one or more of the previous cells are missing).

(Vallee, Column 7 lines 53-55)

Vallee also discloses that

When a change of link configuration occurs by a link being added, removed or declared as being down, each node sends a series of SN cells to allow the far-end node to reestablish the sequence of cells to read from the incoming links.

(Vallee, Column 5 lines 42-46)

Vallee also discloses that

As mentioned above, the SN cell also carries an extra field used by each T1/E1 link to indicate that both AIMs belong to the same link round robin.

(Vallee, Column 5 lines 36-38)

Vallee also discloses that

Upon connection start-up, AIMs at both nodes start inserting AIM OAM cells (AIM SN cells) carrying cell sequence number over the available links in round robin fashion. The sequencing of cells is based on the order in which cells have to be transmitted on the virtual link (composed of N physical links). However, the sequence number is only

carried over the SN cells. This sequence number assignment allows the receiving AIM to retrieve the original cell sequence. The receiving node queues the received AIM SN cells until it determines the sequence in which to read the ATM data cells from the incoming links as well as the differential delay among individual links. Then, it starts sending AIM SN cells of its own, with the AIMFERR field set to "one" for each link which is now considered "ready" to receive ATM traffic. From that moment, the receiving node knows the sequence of cells coming from the links. A link is being considered available if cells are currently delineated and AIM-RDI is not received on the incoming link.

(Vallee, Column 6 lines 34-51)

Vallee also discloses that

The test pattern will be looped back over all the other links in the group at the far end node.

(Vallee, Column 9 lines 54-55)

Applicant respectfully submits that claim 1, as amended is not anticipated by Vallee under 35 U.S.C. 102§(e). Amended claim 1 includes the following limitations:

In a digital communications network, a method comprising:
 monitoring a plurality of links to determine state changes of the links;
 enforcing an inverse multiplexing for asynchronous transfer mode identification (IMA-ID) check when an insufficient links state is reached, such that a link for which a near end IMA-ID matches a far end IMA-ID is maintained and a link for which a near end IMA-ID does not match a far end IMA-ID is disabled;
 relaxing the IMA-ID check when all the links are in an error state; and
 re-enforcing an IMA-ID check when at least one link of the plurality of links recovers from an error state.

(Amended claim 1) (emphasis added)

Applicant respectfully submits that Vallee does not disclose the limitation of enforcing an IMA-ID check when an insufficient link state is reached as claimed. Enforcing an IMA-ID check is disclosed in the specification as maintaining a link when an IMA-ID matches and disabling the link when the IMA-ID link does not match. This limitation is not disclosed in Vallee thus the original Claim 1 is not anticipated by Vallee. Applicant has amended claim 1 to claim the invention more distinctly and more clearly.

For this reason, applicant respectfully submits that claim 1 is not anticipated by Vallee. Applicant also respectfully submits that claims 9, 17, and 25 are, likewise not anticipated by Vallee. Given that claim 27 is dependent from claim 25, applicant respectfully submits that claim 27 is, likewise, not anticipated by Vallee.

Applicant respectfully submits that claim 3, as amended is not anticipated by Vallee under 35 U.S.C. 102§(e). Amended claim 3 includes the following limitations:

In a digital communications network, a method comprising:
 restarting an existing inverse multiplexing for asynchronous transfer mode (IMA) group, comprising
 learning an IMA group ID of a far end IMA group;
 storing the IMA group ID in a memory such that the IMA group ID is made persistent;
 using only links matching the IMA group ID; and
 placing non-matching links in an unusable state.

(Amended claim 3)

Applicant respectfully submits that Vallee does not include the limitation of making the IMA group ID persistent. The portion of Vallee cited by the Examiner to this effect does not teach making the IMA group ID persistent. Vallee teaches sending a series of SN cells to allow a far-end node to reestablish a sequence of cells to read from the incoming links when a change in link configuration occurs. This teaching of Vallee can not be construed as teaching making a group ID persistent.

Moreover, as amended, claim 3 includes the limitation that IMA group ID is stored in memory. Vallee does not include this limitation in any case as stated by the Examiner.

For these reasons applicant respectfully submits that claim 3 is not anticipated by Vallee. Given that claims 4, 6, 7, and 8 are dependent from claim 3,

applicant respectfully submits that claims 4, 6, 7, and 8, are likewise not anticipated by Vallee. Moreover, given that claims 11 and 19 include the limitation of making the IMA group ID persistent, and given that claims 12, and 14 - 16 and claims 20, and 22 - 24, depend from claims 11 and 19, respectively, applicants respectfully submit that claims 11, 12, 14 - 16, 19, 20, and 22 - 24, are likewise not anticipated by Vallee.

Rejections Under 35 U.S.C. § 103(a)

Claims 5, 13 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,205,142 of Vallee (“Vallee”) in view of U.S. Patent No. 6,717,960 of Anesko et al. (“Anesko”).

The Examiner has rejected claims 5, 13 and 21 under 35 U.S.C. § 103 as being unpatentable over Vallee in view of Anesko. The Examiner has stated that

In regarding to claim 5, 13 and 21, Vallee teaches a method comprising: monitoring a plurality of links to determine state changes of the links (Column 7 Line 3-8); enforcing an IMA-ID check when an insufficient links state is reached (Column 8 Line 52-56); relaxing the IMA-ID check when all the links are in an error state (Column 6 Line 59-63); and re-enforcing an IMA-ID check when at least one link of the plurality of links recovers from an error state (Column 6 Line 59-63). Vallee, however does not teach storing a new IMA group ID in memory. Anesko teaches storing a new IMA group ID in memory (Column 4 Line 36-37). It would have been obvious to one skilled in the art to modify Vallee to store a new IMA group ID in memory as taught by Anesko in order to achieve faster process (Column 6 Line 27-32).

(p. 5, Office Action 6/4/04)

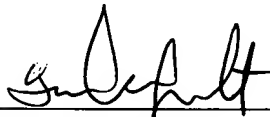
Applicant has amended claims 3, 11, and 19, to include the limitations of claims 5, 13, and 21, respectively.

Applicant submits that the combination of Vallee and Anesko is improper as Vallee does not teach making the IMA group ID persistent as discussed above.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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